

Instructions **for Use**

Water boilers
for tiled stoves

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BRUNNER[®]
made in germany.

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1 INITIAL OPERATION

When using a tiled stove with water boiler please pay attention to the following requirements:

Before lighting fire, check if:

1. The flue gas system and water piping are properly designed and dimensioned.
2. The heating circuit is filled with water and the remaining air is evacuated.
3. The cold water supply pressure for the existing thermal discharge safety device is at least 2 bar (29 psi).
4. Thermal discharge safety device and safety valve are in working order.



The stove cannot be used, as long the requirements 1 - 4 are not met!

The stove cannot be used under any circumstances, when the water boiler is not functional - even if the chosen operation mode will exclude hot water applications!

During operation please remember about the following:

- The user and operator of the heating system must read and understand the following instructions for use. The instructions for use / reference manual must be always at hand for user reference.
- The operating water temperature must be between 60°C (140°F) to 90°C (194°F). Operating temperatures below 60°C (140°F) will cause fast soot build-up on the heat exchanger faces and significant loss of efficiency. Above 95°C (203°F) the thermal discharge safety device will respond, leading the excessive heat safely away.
- The thermal safety device function must be checked at initial operation and then at least once a year on a regular basis. Faulty operation requires immediate action and repairs. Repairs and checks must be carried out by a specialized technician only.
- If the necessary cold water supply pressure for the thermal discharge safety device is not available (< 2 bar/29 psi), for instance, due to local or your own water supply failure, the water boiler system must be shut down immediately. Protection against overheating is not present in this case.



Heating operation without a working thermal discharge safety device is not allowed!

- After lighting fire (for 10 minutes) the stove should be used only for warm air applications (radiators/accumulators; only HKD4.1w and HKD4.1SK). When reaching temperatures at 450-500°C (932°F), you can switch the smoke valve to let the flue gas stream into the water boiler.
- Rated heating power can be achieved only, if the water boiler is operated at full load. At partial load the water heating power is disproportionately low, direct heat projection into the room is significantly higher!

2 PRELIMINARY NOTES

Stoves with switch-off water boiler operation

Z= ceramic chimney flue

M= Flue gas flow branch piece
<Moritz's flap>

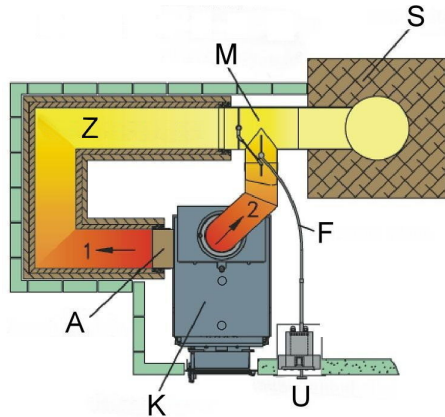
S= Chimney

F= flexible shaft

U= Switching lever

K= Boiler body

A= Connecting stone



During combustion, the heat of the flue gases can be led from the combustion chamber through the top-mount boiler or the upper part of the SK water boiler and used for warming up the heating water circuit. The water boiler can be activated and deactivated with a special smoke valve. This can be a three-way flow control valve ("Moritz's flap") between the water boiler and the chimney entrance, or a set of individual flaps. Using this smoke valve you can switch between two available operating modes, hot water (the water boiler mode) and warm air or heat projection (the radiator/accumulator mode).

Because the top-mount boiler or the upper part of the SK water boiler is utilizing all the available energy of the flue gases for hot water production, it is not possible to connect any additional downstream radiators or heat accumulators behind them. The flue gas must be led away into the chimney on shortest possible way.

Stoves with adjoining boiler (z.B. HKD 2.2 XL-SK/h)

In order to avoid increased contamination of the exchanger surfaces of the water heat exchanger during the startup phase of the burnup, it is only possible to switch over to the water heat exchanger at a burnup temperature of 450 ° C.

If the water heat exchanger is not switched on during operation, but only uses the heat stockage function, condensate formation in the lateral exchanger surfaces of the boiler is unavoidable. The heat exchanger surfaces of a boiler body are designed for regular operation.

Stoves without switch-off water boiler operation

The use of stoves without switch-off water boiler operation is very easy and comfortable. The flue gases are streaming through the water boiler uninterruptedly and produce hot water every time, once fire is burning.

Stoves with switch-off water boiler operation

For units with switch-off boiler parts (HKD 2.2 SK, HKD 2.2 XL-SK / h), an after-heating surface can optionally be connected. In this case, the reheating surface is operated via the previously described three-way flap.

Keep these operating instructions concerning the heating system visible, well placed in the installation room.

3 CLEANING AND MAINTENANCE

The water pressure of the heating system must be checked on a regular basis. Air must be evacuated completely from the heat exchanger.

Reduced efficiency or weak flame during combustion in water boiler mode can indicate a strong soot build-up inside. The water boiler must be cleaned as soon as possible.

The smoke pipes should be cleaned before every longer period when the stove is not in use.

Heating device and flue gas ducts

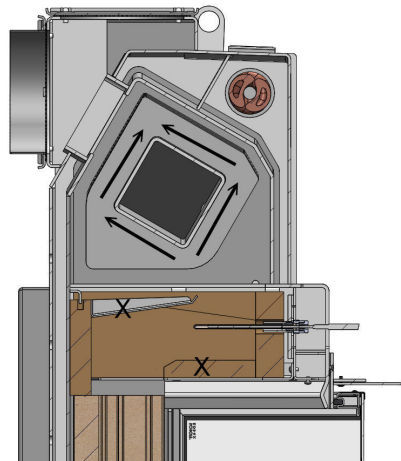
Refer to the User Guide provided with your stove insert / fireplace.

Use the cleaning brush to clean the flue gas pipes. The soot should fall basically into the combustion chamber, just a small portion can get into the rear smoke collector, where it can be cleaned after removing the smoke pipe blank cover (3), if necessary.

After cleaning close the covers (1) and (3) tightly.

Kamin-Kessel Eck 42/57/30

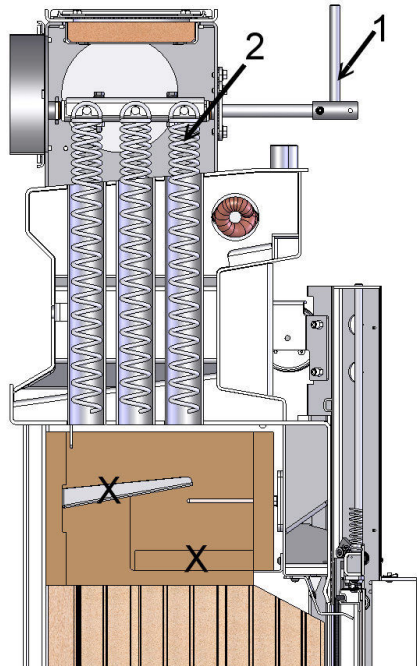
Heat exchanger faces are available directly from the combustion chamber after the deflecting blocks (X) have been removed. Using the provided cleaning brush you can sweep the spaces between water conducting elements (see marked with errors in the picture). Soot is falling down into the combustion chamber. Put the deflecting block(-s) back in place.



Kamin-Kessel Eck 45/67/44

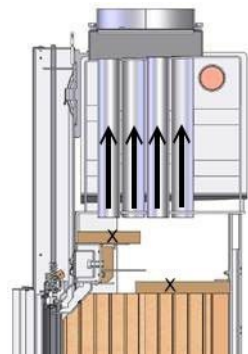
The heat exchanger pipes must be cleaned at the latest after every third burnup. The cleaning mechanism is to be operated via a control lever (1) either on the device or in the tiled stove shell with full stroke, do not use only the spring play. After cleaning, the mechanics should be brought into the middle position. Ashes are falling down from the heat exchanger pipes (2) directly onto the deflecting blocks.

The deposits must be removed from time to time from the deflecting blocks (X). For this purpose, the deflections can be shortly removed / tilted and placed back in the original position.



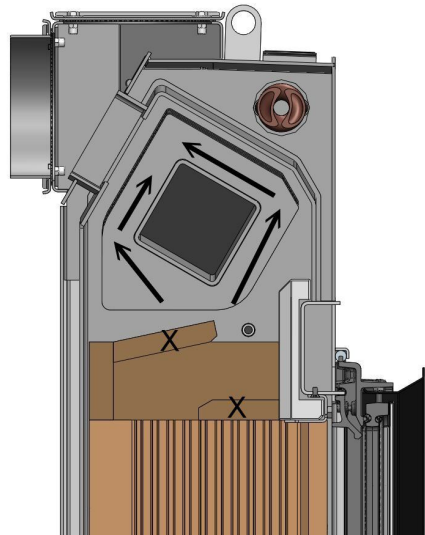
Kamin-Kessel 62/76

Heat exchanger faces are available directly from the combustion chamber after the deflecting blocks (X) have been removed. Using the provided cleaning brush you can sweep the spaces between water conducting elements (see marked with errors in the picture). Soot is falling down into the combustion chamber. Put the deflecting block(-s) back in place.

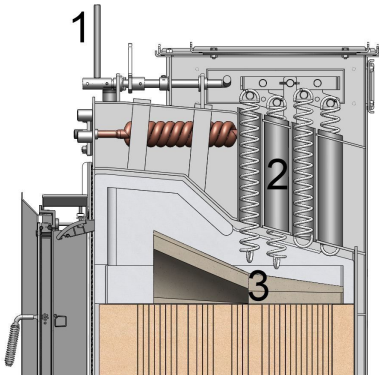


HKD 2.2k SK / HKD 2.6k SK

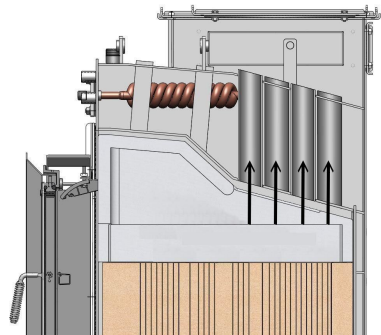
Heat exchanger faces are available directly from the combustion chamber after the deflecting blocks (X) have been removed. Using the provided cleaning brush you can sweep the spaces between water conducting elements (see marked with errors in the picture). Soot is falling down into the combustion chamber. Put the deflecting block(-s) back in place.



Kompakt-Kessel B4N



Illustr. 1: B4 with cleaning spring



Illustr. 2: B4 without cleaning spring

Kompakt-Kessel B4N can be supplied with an optional cleaning device, actuated with a lever (1) placed on the oven itself or the tiled stove shell. Ashes are falling down from the heat exchanger tubes (2) directly onto the deflecting blocks (3).

These deflecting blocks must be removed from time to time, just to let the ashes fall down into the combustion chamber.

Put the deflecting blocks back in place!

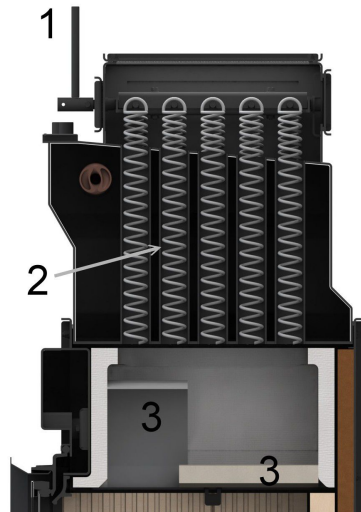
Kompakt-Kessel B7 / B8

Heat exchanger faces of a Kompakt-Kessel B7 or B8 are integrated inside the flue gas outlet and are in general self-cleaning during operation. These heat exchanger faces must not be cleaned.

HKD 2.2 SK / HKD 2.2 XL-SK/h / HKD 7 SK

The heat exchanger tubes must be cleaned at the latest after every third burnup. The cleaning mechanism is to be operated via a control lever (1) either on the device or in the tiled stove shell with full stroke, do not use only the spring play. After cleaning, the mechanics should be brought into the middle position.

The deposits must be removed from time to time from the deflecting blocks (3). For this purpose, the deflections can be shortly removed / tilted and placed back in the original position.



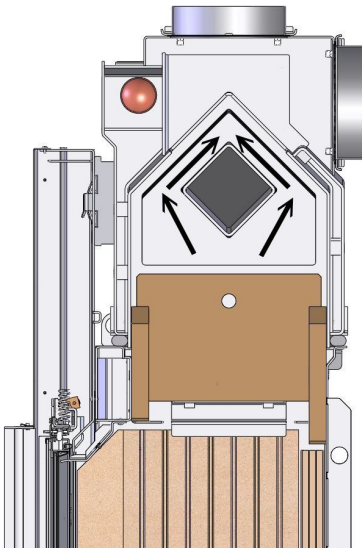
If the cleaning of the heat exchanger tubes occurs too rarely, there is a risk that the springs of the cleaning aid in the heat exchanger tube are no longer movable.

The ashes fall out of the heat exchanger tubes (2) directly on the deflecting blocks (3).

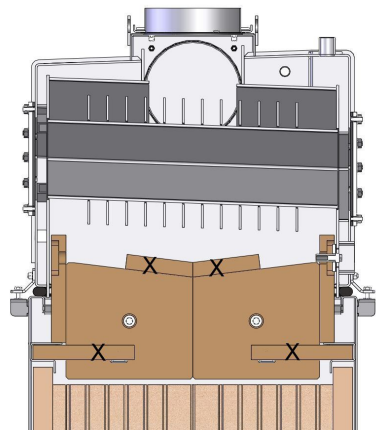
These deflecting blocks must be removed from time to time, just to let the ashes fall down into the combustion chamber.

Put the deflecting blocks back in the original position.

On top mount boiler



Illustr. 3: laterally section



Illustr. 4: cross section

Heat exchanger faces are available directly from the combustion chamber after the deflecting blocks (X) have been removed. Using the provided cleaning brush you can sweep the spaces between water conducting elements (see marked with errors in the picture). Soot is falling down into the combustion chamber. Put the deflecting block(-s) back in place.

4 NOTICE

A tiled stove with water boiler inside must be assembled by authorized technicians only (tiled stoves & central heating), because safety and efficiency of the system depend mostly on proper installation of the product. All valid stove fitting rules and regulations of building law must be observed and followed.

Ulrich Brunner GmbH
Zellhuber Ring 17-18
D-84307 Eggenfelden
Tel.: +49 (0) 8721/771-0 / Fax: +49 (0) 8721/771-100
Email: info@brunner.de

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